ILLAWARRA TUTORING

In this worksheet you will extend your factorisation techniques to handle more complex trinomials. You will practice factorising quadratics with non-unit coefficients and even ones containing parameters. Remember to show all your working.

Easy Questions

1. Factorise $2x^2 + 7x + 3$.
2. Factorise $3x^2 + 11x + 6$.
3. Factorise $5x^2 + 13x + 6$.
4. Factorise $6x^2 + 17x + 5$.
5. Factorise $7x^2 + 15x + 2$.

Intermediate Questions

6. Factorise $6x^2 + 11x - 10$.
7. Factorise $4x^2 - 4x - 15$.
8. Factorise $9x^2 - 12x - 7$.
9. Factorise $10x^2 + 3x - 7$.
10. Factorise $8x^2 + 7x - 15$.
11. Factorise $14x^2 + 11x - 3$.
12. Factorise $15x^2 - 2x - 8$.
13. Factorise $6x^2 + x - 2$.
14. Factorise $8x^2 - 10x - 3$.
15. Factorise $12x^2 + 17x - 5$.
16. Factorise $20x^2 - 3x - 2$.
17. Factorise $18x^2 + 5x - 2$.
18. Factorise $16x^2 - 8x - 15$.
19. Factorise $15x^2 + 2x - 8$.
20. Factorise $20x^2 + 3x - 2$.

Hard Questions

21. Factorise $18x^2 + 29x + 10$.
22. Factorise $24x^2 + 7x - 5$.
23. Factorise $35x^2 - 4x - 4$.
24. Factorise $28x^2 + 2x - 6$.
25. Factorise $40x^2 + 3x - 1$.
26. Factorise $kx^2 + (k+3)x + 3$, where k is a non-zero constant.
27. Factorise $4x^2 + \frac{7}{3}x + \frac{1}{3}$.
28. Factorise $2(3x-2)^2 + 5(3x-2) + 2$.
29. Factorise $20x^2 + 17x - 3$.
30. Factorise $ax^2 + (a+5)x + 5$, where a is a constant.